ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
02AH50	Cheshire Monitoring study

SAMPLERS: *(Print Name and Sign)*
Mike Murphy Mike Murphy Mike Murphy

Activity Code: ~~12345~~ 90101A

AIR 2W20080

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte	TAG NUMBERS
D01	5/26	00:00	X		GHS	1		5-340224 1 to 1
S02	5/26	00:00	X		RVHS	1		5-340225 1 to 1
S03	5/26	00:00	X		ADDAVILLE	1		5-340226 1 to 1
SO1	5/26	00:00	X		GHS	1		5-340223 1 to 1
								GHS # 3012, PSTG Avg = 16.35
								GHS # 3013, PSTG Avg = 16.55
								RVHS, PSTG Avg = 16.0
								Addaville, PSTG Avg = 15.6

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
M.J. Murphy	5-26-02 0855	William Sylvester
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) / Date / Time
		William Sylvester 6/7/02 11:15am

Ship To:

ATTN:

Airbill Number
UPS # 1Z 401 199 01 4043 9074

Chain of Custody Seal Numbers

5-140056

Project No. 02AH50 Project Name CHESHIRE MONITORING STUDY 90101A

AIR 2002U080 ARRIVAL DATE: 6/7/2002 DUE DATE: 6/28/2002

Sampler
Mike Murphy

Cooler ID 1 **Page** 5-140056

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH50D01	D01	26/05/2002 00:00:00	○ Grab ● Com	GHS	1	5-340224 1 to 1

Bottle No. 1 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH50S02	S02	26/05/2002 00:00:00	○ Grab ● Com	RVHS	1	5-340225 1 to 1

Bottle No. 1 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH50S03	S03	26/05/2002 00:00:00	○ Grab ● Com	ADDAVILLE	1	5-340226 1 to 1

Bottle No. 1 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH50SO1	SO1	26/05/2002 00:00:00	○ Grab ● Com	GHS	1	5-340223 1 to 1

Bottle No. 1 **Parameter** PM10

CENTRAL REGIONAL LABORATORY
Data Checklist

Data Set AIR 2002 0080 Cheshire Monitoring Study
PM10

☑ Chain of Custody

☑ Reported in LIMS

☑ Transmittal Report w/signatures of the following:

- Analyst(s)
- Environmental Data Coordinator

Prepared by: Sylvia Griffin 6-20-02
Environmental Data Coordinator

Revised 11-04-02

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUN 20 2002

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Edgar Santiago, Chemist**
Region 5 Central Regional Laboratory

To:

Attached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **20020080**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH50D01, 2002AH50S01, 2002AH50S02, and 2002AH50S03.**

JUN 20 2002

Data Management Coordinator and Date Received

Date Transmitted: JUN 20 2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

/ /

Received by and Date

Comments:

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated ***B***lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (***J*** is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL ***M***ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is estimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS Te***N***tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or ***Q***uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are ***R***ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed for but ***U***ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

03/07/01

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION **SAMPLING DATE:** 05/26/2002 **LAB ARRIVAL DATE:** 06/07/2002 **DUE DATE:** 06/28/2002
DU NUMBER: 90101A **DATA SET NUMBER:** 20020080 **STUDY:** CHESHIRE MONITORING STUDY **PRIORITY:** 1 **LABORATORY :**CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH50D01	GUIDING HANDS SCHOOL	0.0413			
2	2002AH50S01	GUIDING HANDS SCHOOL	0.0431			
3	2002AH50S02	RVHS	0.0387			
4	2002AH50S03	ADDAVILLE	0.0424			
DATE OF ANALYSIS			06/12- 13/2002			
ANALYST			E.S			

Reviewed by: [signature] Date: 6/19/02

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 2002080 Facility: CHESHIRE MONITORING

Parameter: PM10 CRL.SOP: AIG047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: E.S Peer Reviewer: FAA

Date: 6/13/02 Date: 6/19/02

Comments Attached? (Y/N) N

Data Set Number:	*20020080*	**Parameter:**	*Suspended Particles*
Facility Name:	*CHESHIRE MONITORING STUDY*		
Study Name:	*CHESHIRE MONITORING STUDY*		
Date of Narrative:	*06/13/2002*	**Analyst:**	*ES*
		Signature:	E.S

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on June 07, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q8609560	2002AH50D01	5-340224
Q8609555	2002AH50S01	5-340223
Q8609558	2002AH50S02	5-340225
Q8609559	2002AH50S03	5-340226

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 06/12/2002 and was completed on 06/13/2002. All exposed filters were in good conditions. No sampler sn number was provided for filters Q8609558 and Q8609559 (CRL sample I.D number 2002AH50S02 and 2002AH50S03).

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT
PM10

Parameter: Suspended Particles

Data Set Numbers: **20020080, 20020081**

Date of Analysis 06/12- 13/2002

Analyst: ES

BALANCE VERIFICATION:

Sandard Weights Actual (g)	Balanced weight Balanced (g)	Differences (g)
		Limit +/-0.0005 g
1.0000	1.0001	-0.0001
2.0000	1.9999	0.0001
5.0000	5.0001	-0.0001

QC-SUMMARY FOR EXPOSED FILTERS

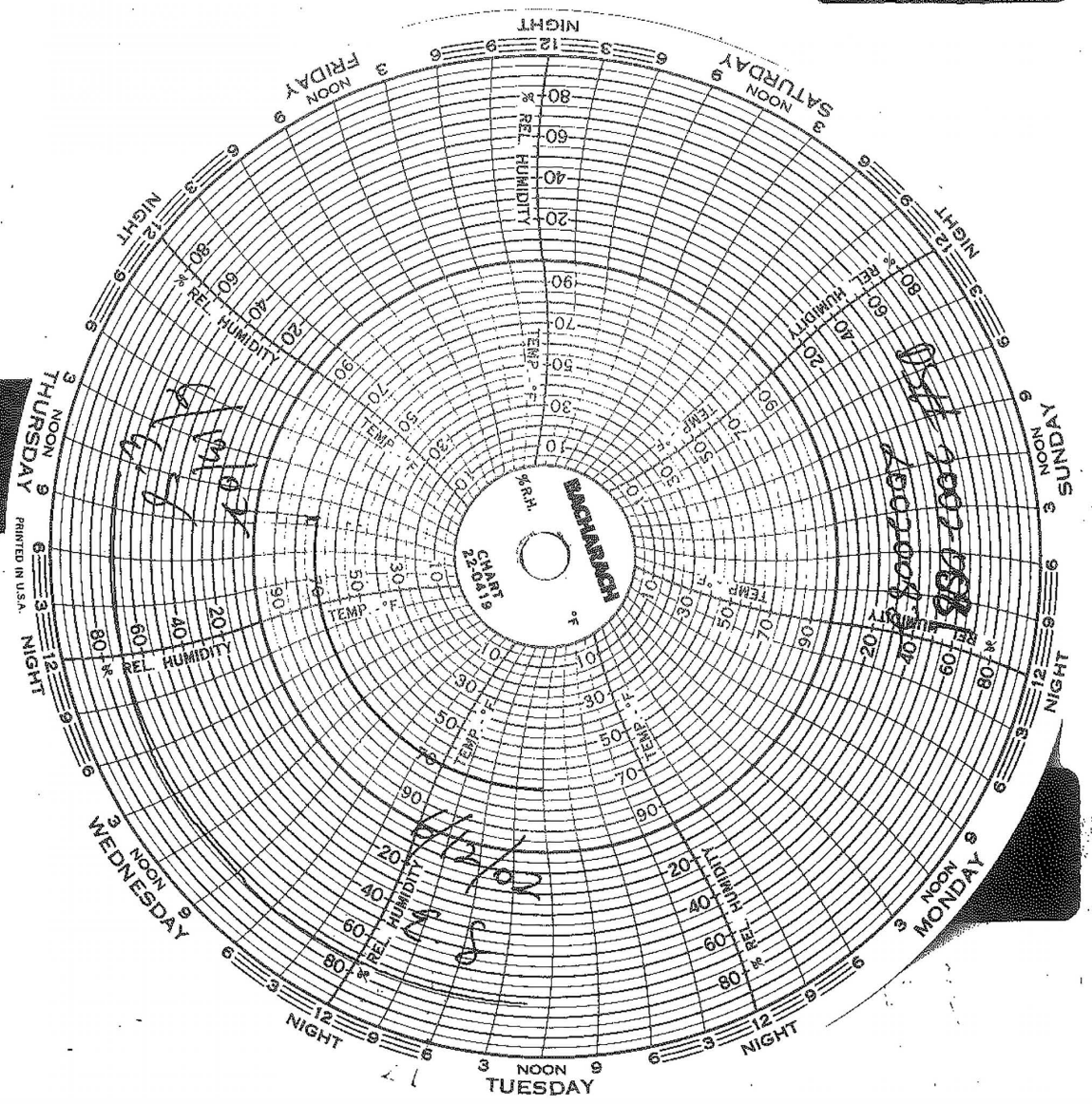
Filter ID Number	CRL Sample I.D Number	Analysis Date	ANALYST	Exposed weight (g)
Q8609559	2002AH50S03	06/13/02	Analyst 1	4.3767
Q8609559	2002AH50S03	06/13/02	Analyst 2	4.3762
Differences (Limit +/- 5 mg).....		.....		0.0005

CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID Number	CRL Sample I.D Number	Sampling Date	Station Location	Sampler SN	Pstg Avg	P1/Pa	Total Volume (M^3)	Pre Weight of filters (g)	Exposed weight (g)	Weight Gain	PM10 (UG/M^3)
Data set Number 20020080											
Q8609560	2002AH50D01	06/01/02	Guiding Hands School	3013	16.55		**0.00**	4.3683	4.4096	0.0413	ERR
Q8609555	2002AH50S01	06/01/02	Guiding Hands School	3012	16.35		**0.00**	4.3580	4.4011	0.0431	ERR
Q8609558	2002AH50S02	06/01/02	RVHS		16.00		**0.00**	4.3507	4.3894	0.0387	ERR
Q8609559	2002AH50S03	06/01/02	Addaville		15.60		**0.00**	4.3343	4.3767	0.0424	ERR

General information	*Standard weights, actual (g)*	*Balanced weights, balanced (g)*
[illegible]		
SARTORIUS	(500+200+200+100) (mg)	1.0000 1.0001
#37010119		2.0000 1.9999
6/12/02-E.S		5.0000 5.0001
Mettler AG 285	0.1000	0.0999
1120181846	0.2000	0.2000
13 June 02	0.5000	0.5000
	1.000 (0.5+0.2+0.2+0.1)	1.0000

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
Q8609578	4.3518		4.3696		
Q8609577	4.4047		4.4346	4.4342 Final	
Q8609576	4.4045		4.4332		
Q8609575	4.4086		~~4.4200~~ 4.4336 E.S		
Q8609574	4.3944		4.4200		
Q8609573	4.3820		4.4151		
Q8609572	4.3980	4.3983 4/9/02 Final	4.4317		
Q8609571	4.4116				
Q8609570	4.3708				
Q8609569	4.3923				
Q8609568	4.3413				
Q8609567	4.3699				
Q8609566	4.3652		4.4232		
Q8609565	4.3893		4.4524		
Q8609564	4.3782		4.4429	4.4425 Final 6/11/02	
Q8609563	4.3914		4.5010		
Q8609562	4.4055				
Q8609561	4.4050				
Q8609560	4.3683	4.3687 4/9/02 Final	4.4096		
Q8609559	4.3343		4.3767	4.3762	
Q8609558	4.3507		4.3894		
Q8609557	4.3532		4.3750		
Q8609556	4.3494		4.3771		
Q8609555	4.3580		4.4011		


NIGHT
SATURDAY
NOON
SUNDAY
NIGHT
MONDAY
NOON
NIGHT
TUESDAY
NOON
NIGHT
WEDNESDAY
NOON
THURSDAY
NIGHT
FRIDAY
NOON
NIGHT
REL. HUMIDITY
%
TEMP. °F
%R.H.
°F
BACHARACH
CHART
22-0819
PRINTED IN U.S.A.

US EPA Region 5 Field Sample

5-340224-1

Parameters PM10

AIR 2002 0080

Preservative	None	**S**	**M**	**MD**	**B**	**D**
Sample ID	02AH50D01	X				

Sampler Mike Mirza

Date 5-26-02

PM-10 ✓ SAROAD ______ OPERATOR OEPA DATE 5-26-02

TSP ______ SITE Bush 3415 @8607560

AVG. RECORDER RESP. 16.55 TEMP ______ C ______ K FINAL WT ______ g

ELAPSED TIME 1440 MINUTES PRESS ______ mmHg INITIAL WT ______ g

FLOW ______ m³/min TOTAL FLOW ______ m³ SAMPLE WT ______ g

STD ______ ACTUAL ______ PM-10 ______ ug/m³

COMMENTS: ____________________

EPA 330F

US EPA Region 5 Field Sample

5-340223-1

Parameters PM10

AIR 20020080

Preservative None **S M MD B D**

Sample ID 02AH50SO1 X

Sampler Mike Murphy

Date 5-26-02

PM-10 1 SAROAD ____ OPERATOR OEPA DATE 5-26-02

TSP ____ SITE GHSH 3412 Q8409555

AVG. RECORDER RESP. 16.35 TEMP ____ C ____ K FINAL WT ____ g

ELAPSED TIME 1442 MINUTES PRESS ____ mmHg INITIAL WT ____ g

FLOW ____ m^3/min TOTAL FLOW ____ m^3 SAMPLE WT ____ g

STD ____ ACTUAL ____ PM-10 ____ ug/m^3

COMMENTS: ____

EPA 3308

US EPA Region 5 Field Sample

5-340225-1

Parameters PM10

AIR 2002-0080

Preservative None   **S M MD B D**

Sample ID 02AH50S02   X

Sampler Mike Murphy

Date 5-26-02

PM-10 ✓ SAROAD ______ OPERATOR OEPA DATE 5-26-02

TSP ______ SITE RUHS Q8607553

AVG. RECORDER RESP. ~~16.5~~ 160 TEMP ______ C ______ K FINAL WT ______ g

ELAPSED TIME 1440 MINUTES PRESS ______ mmHg INITIAL WT ______ g

FLOW ______ m^3/min TOTAL FLOW ______ m^3 SAMPLE WT ______ g

STD ______ ACTUAL ______ PM-10 ______ ug/m^3

COMMENTS: ______

EPA 3308

US EPA Region 5 Field Sample
5-340226-1
Parameters PM10
AIR 2020092
Preservative None S M MD B D
Sample ID 02AH50S03 X
Sampler Mike Murphy
Date 5-26-02

PM-10 ✓ SAROAD ______ OPERATOR OEPA ______ DATE 5-26-02

TSP ______ SITE Addieville 0160?? ______

AVG. RECORDER RESP. 15.6 ______ TEMP ______ C ______ K FINAL WT ______ g

ELAPSED TIME 1442 MINUTES PRESS ______ mmHg INITIAL WT ______ g

FLOW ______ m³/min TOTAL FLOW ______ m³ SAMPLE WT ______ g

STD ______ ACTUAL ______ PM-10 ______ ug/m³

COMMENTS: ______

EPA 3306